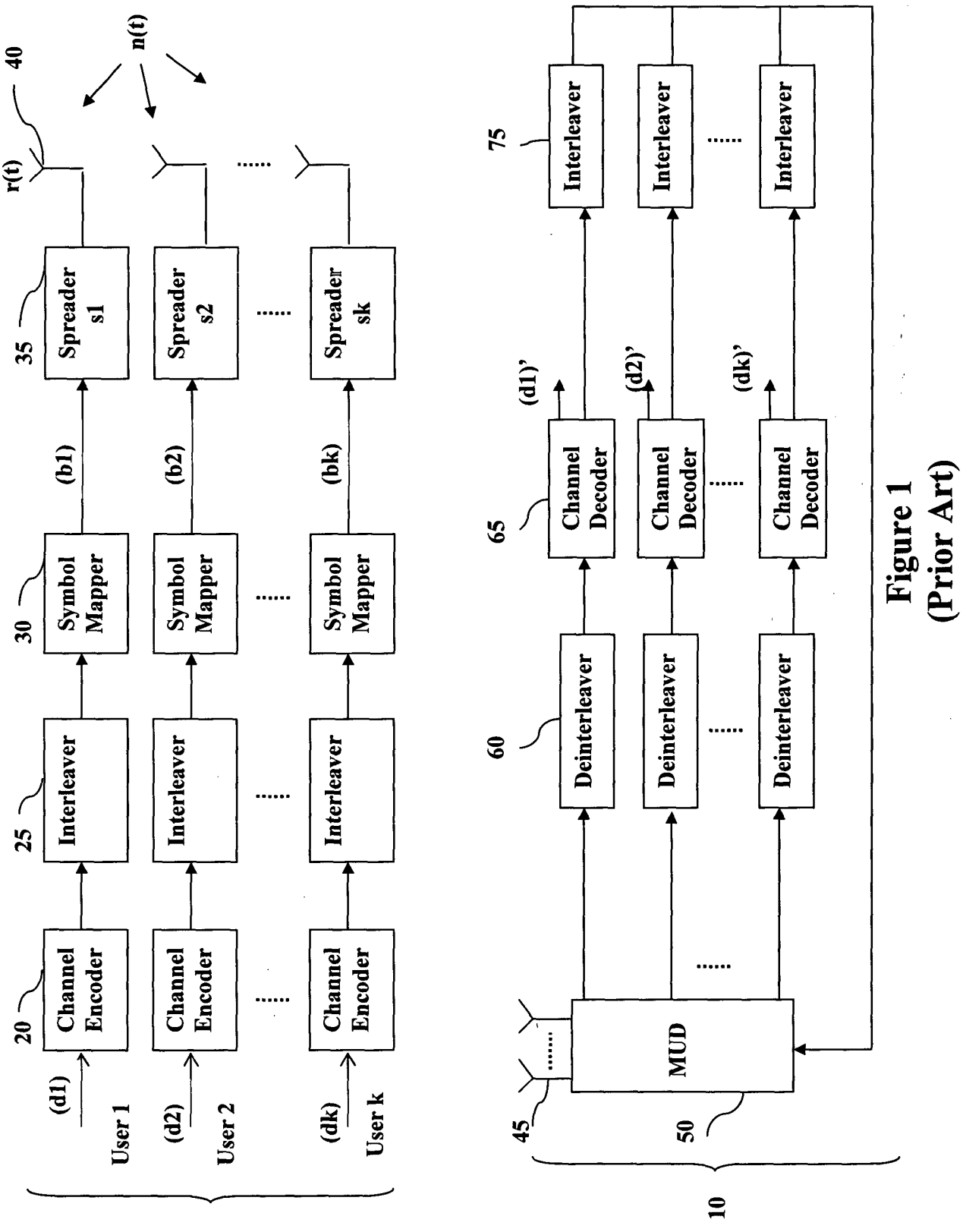

Figure 1
(Prior Art)

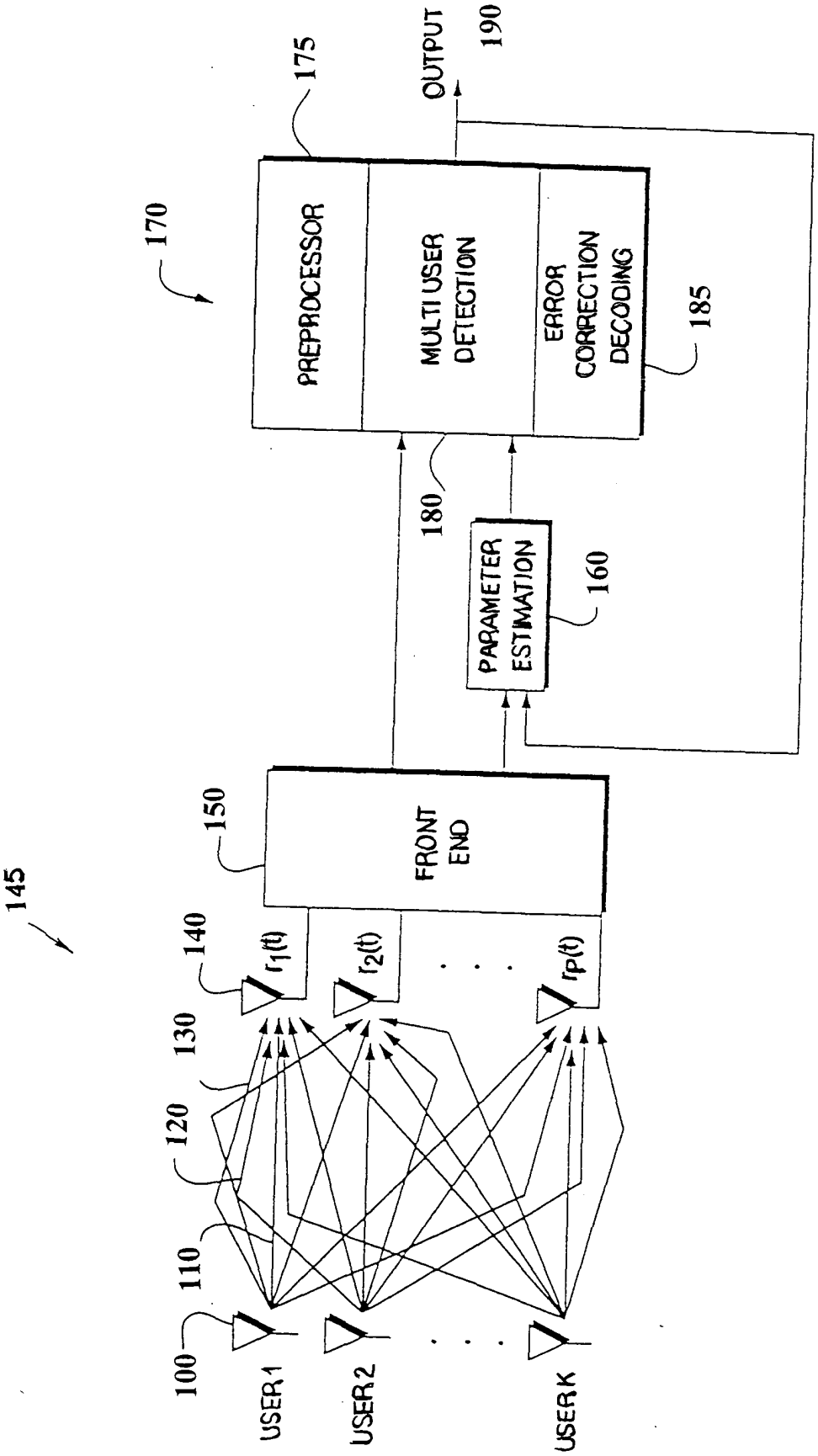
145
100
USER 1
USER 2
USER K
110
120
130
140
$r_1(t)$
$r_2(t)$
$r_P(t)$
150
FRONT END
160
PARAMETER ESTIMATION
170
175
PREPROCESSOR
MULTI USER DETECTION
ERROR CORRECTION DECODING
180
185
OUTPUT
190

Figure 2

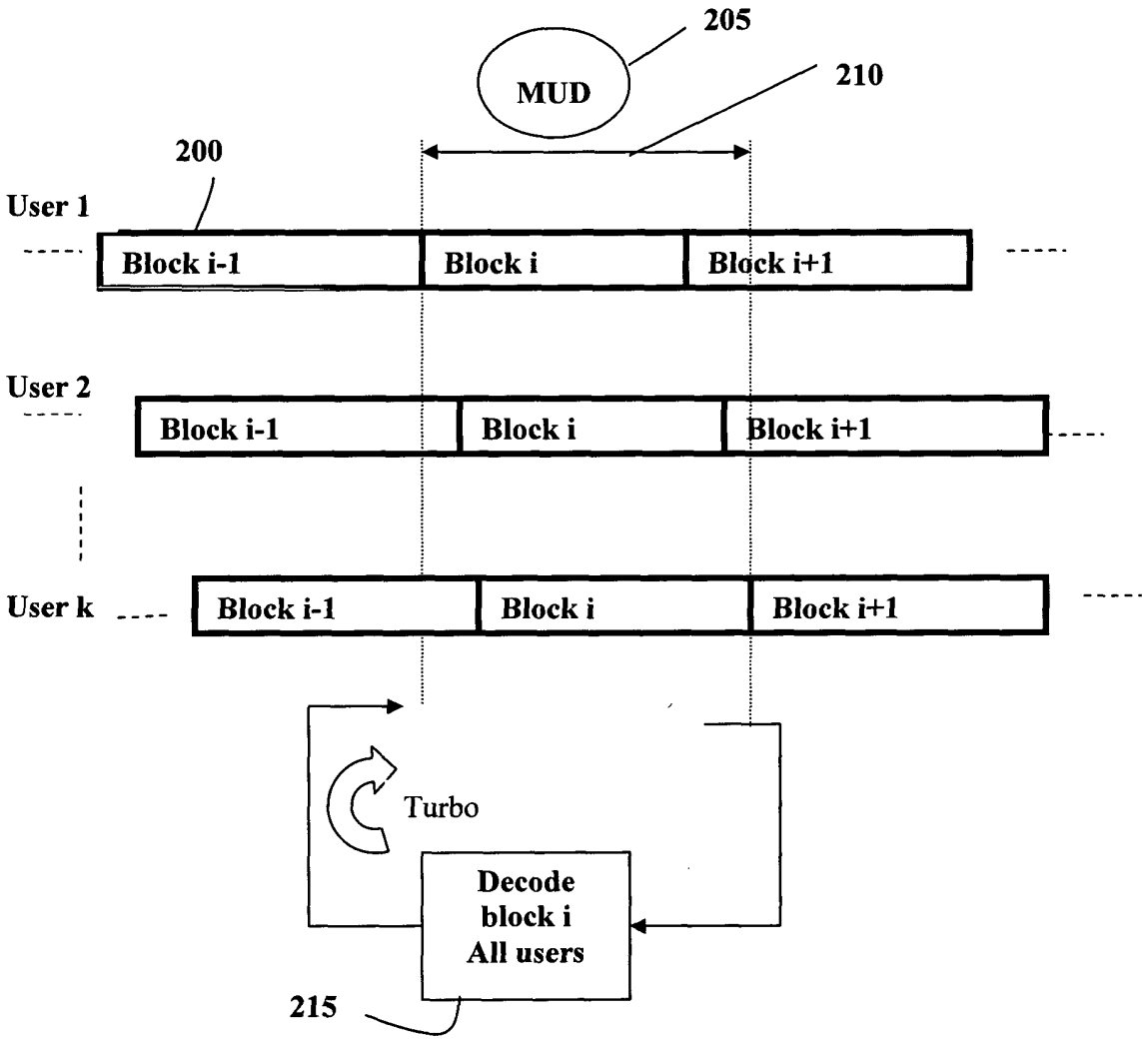

Figure 3
(Prior Art)

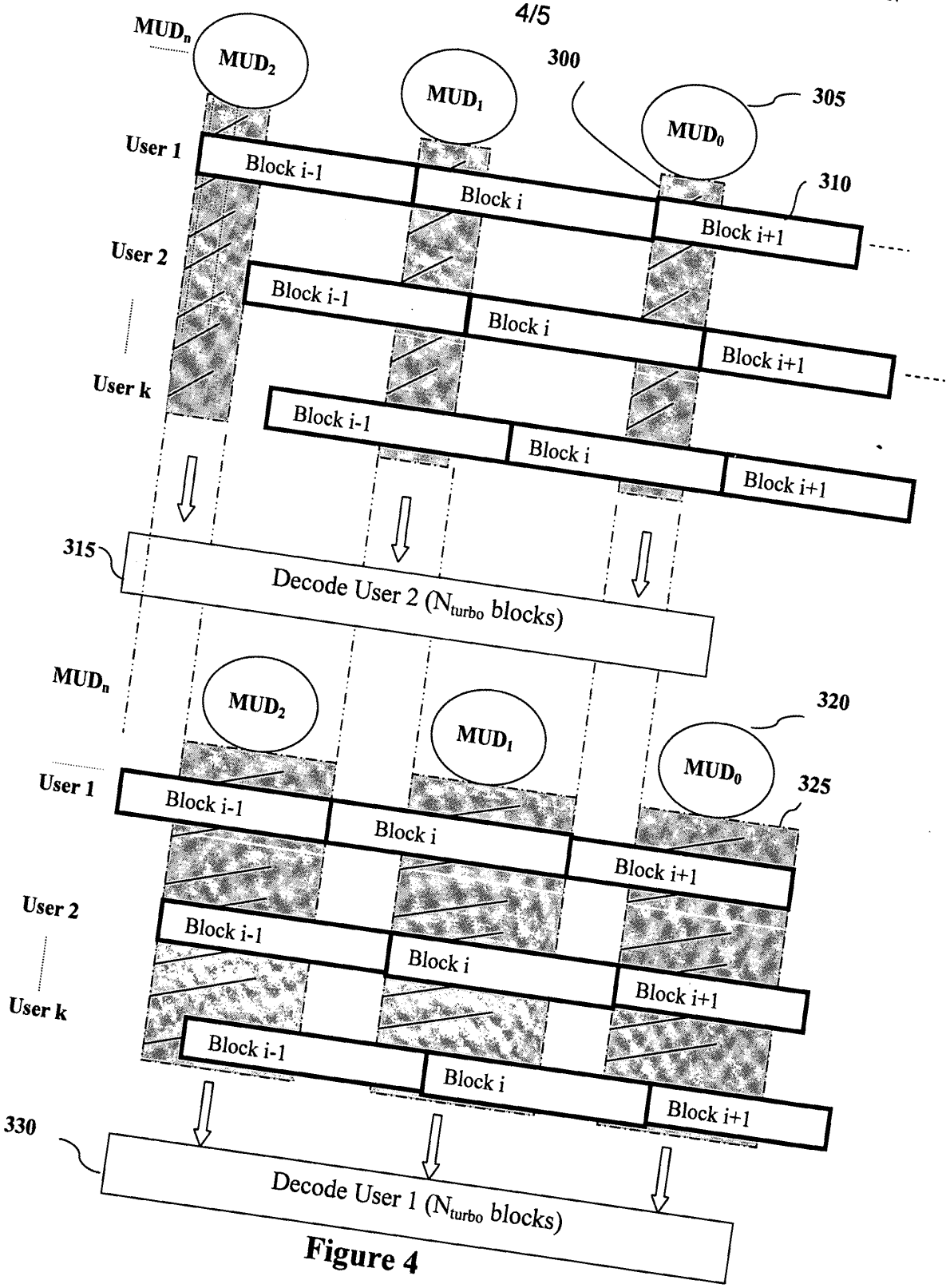
MUD$_n$
MUD$_2$
MUD$_1$
MUD$_0$
300
305
310
User 1
User 2
User k
Block i-1
Block i
Block i+1
315
Decode User 2 (N_{turbo} blocks)
320
325
330
Decode User 1 (N_{turbo} blocks)

Figure 4

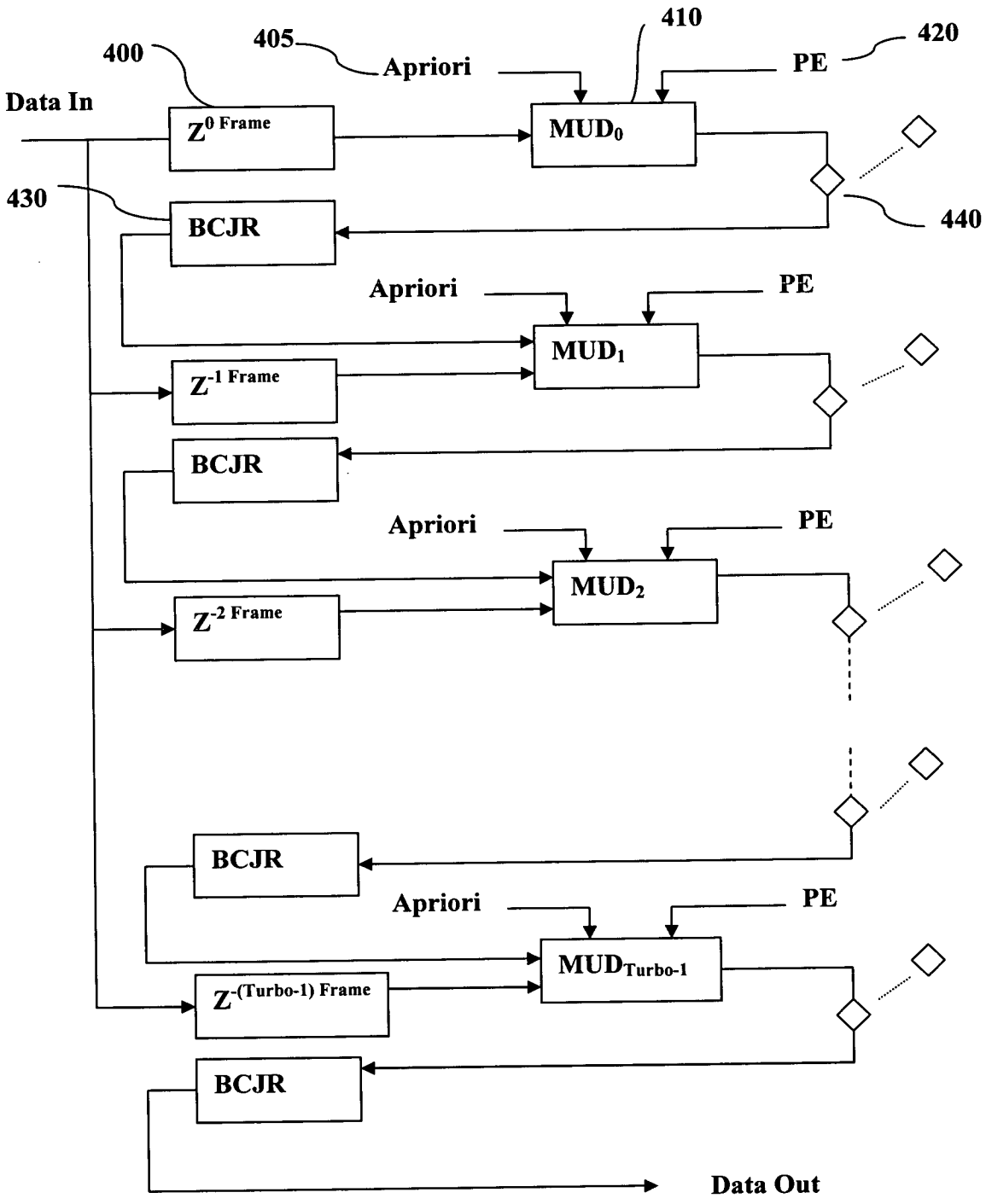
400
405
Apriori
410
PE
420
Data In
Z^0 Frame
MUD_0
430
BCJR
440
Apriori
PE
MUD_1
Z^{-1} Frame
BCJR
Apriori
PE
MUD_2
Z^{-2} Frame
BCJR
Apriori
PE
$MUD_{Turbo-1}$
$Z^{-(Turbo-1)}$ Frame
BCJR
Data Out

Figure 5